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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/876,708	06/07/2001	Masahiro Hashimoto	P/126-205	9405

7590

06/24/2005

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EXAMINER

AZARIAN, SEYED H

ART UNIT

PAPER NUMBER

2625

DATE MAILED: 06/24/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/876,708 ✓

Applicant(s)

HASHIMOTO, MASAHIRO

Examiner

Seyed Azarian

Art Unit

2625

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 April 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 June 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

RESPONSE TO AMENDMENT

1. Applicant's arguments, filed, 4/01/2004, see page 7 through 11, of remarks with respect to the rejection of claims 1-19 under 103(a) have been fully considered and are not persuasive.

Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Ogawa et al (U.S. patent 6,704,431).

2. Applicant's argues in essence regarding claim 1, that Nakamura does not teach, "degree of insertion strength of watermark based on the data amount of the digital image per unit time".

Contrary to the applicant's assertion, the examiner is using the new reference supplied with this action: Ogawa et al (U.S. patent 6,704,431) discloses, "watermark embedding strength" can be changed according to the frequency band, the amount of change of digital data contents from original data for each frequency band due to manipulation (adjusting), the watermark strength is raised to a band when the amount is large, and the watermark strength is reduced when the amount is small, further a number of digital data contents are prepared and calculate the watermark strength (column 15, lines 8-37).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-19, are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakamura et al (U.S. patent 6,135,312) in view of Ogawa et al (U.S. patent 6,704,431).

Regarding claim 1, Nakamura discloses an electronic watermark system for use in inserting an electronic watermark into a digital image, comprising (column 1, lines 7-15, embedding watermark information);

measuring means for measuring a data amount of the digital image per unit time to produce a detection signal representative of a result of measurement (Fig. 6, column 13, lines 57 through column 14, line 16, time of embedding the information in the motion picture, by dividing the motion picture into group of frames of unit time);

and control means for controlling a degree of insertion strength of the electronic watermark with reference to the data amount of the digital image (column 32, lines 28-44, furthermore, the strength can be controlled to counter degradation of the sub-information (watermark information)).

However regarding claim 1, Nakamura clearly discloses a plurality of information can be embedded using an individual block size partitioning method, since with a still image the size of the time axis direction of the motion picture (column 43, lines 38-54), but does not explicitly disclose its corresponding “strength of the electronic watermark per unit time”. On the other hand Ogawa discloses, “watermark embedding strength” can be changed according to the frequency band due to manipulation, the amount of change of digital data contents from original data for each frequency band (period of time), the watermark strength is raised to a band when the amount is large, and the watermark strength is reduced when the amount is small, further a

Art Unit: 2625

number of digital data contents are prepared and calculate the watermark strength (column 15, lines 8-37).

Therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Nakamura invention according to the teaching of Ogawa because it provides embedding sub-data in data contents without being noticed for protecting a multimedia copyright and reliability of embedded data and improve quality, which can easily be implemented in an image device such as video camera.

Regarding claim 2, Nakamura discloses an electronic watermark system as claimed in claim 1, wherein the control means comprises: a judging portion for judging the data amount of the digital image to produce a judgment result signal (column 40, lines 55-65, reading information for a block judges the coefficient corresponding to the coordinates selected by coordinates-selection);

the electronic watermark system further comprising an insertion portion for inserting the electronic watermark by adjusting the degree of insertion strength of the electronic watermark in response to the judgment result signal (see claim 1, also column 51, lines 12-42, sub-information subjected to error correction coding, then the judgment of the possibility of error correction can be made from the reliability).

Regarding claim 3, Nakamura discloses an electronic watermark system as claimed in claim 2, further comprising: a preprocessing portion, which a sequence of DCT coefficients (column 27, lines 5-22, Discrete Cosine Transform);

the judging portion judging the data amount from the number of the DCT coefficients (column 37, line 54 through column 38, line 6, frequency coefficient).

Regarding claim 4, Nakamura discloses an electronic watermark system as claimed in claim 2, further comprising, a preprocessing portion which produces a sequence of bits based on the digital image (column 20, lines 50-67 a different bit number is obtained by comparing discrimination code and a portion corresponding);

the judging portion judging the data amount from a bit rate of the bit sequence (column 49, line 53-67 the bit-information reading section judges the bit assigned with the quantization value).

Regarding claim 5, Nakamura discloses an electronic watermark system as claimed in claim 1, wherein the digital image is a sequence of encoded data encoded in accordance with the MPEG coding (column 7, line 59 through column 8, line 5, information in the motion picture encoded by the MPEG).

Regarding claim 6, Nakamura discloses a method of inserting an electronic watermark into a digital image, comprising the steps of, measuring a data amount of the digital image per unit time to produce a measurement result signal representative of a measurement result; and controlling a degree of insertion strength of the electronic watermark in response to the measurement result signal to insert, into the digital image, the electronic watermark adjusted by the degree of insertion strength (column 32, lines 45-65, measuring strength of copy right).

Regarding claim 14, Nakamura discloses a method as claimed in claim 11, wherein the detecting step comprises the steps of, measuring a bit rate of the digital image to obtain the data amount of per unit time (column 13, lines 57 through column 14, line 12, time of embedding the information in the motion picture, by dividing the motion picture into group of frames of unit time);

and controlling the degree of insertion strength with reference to the measured bit rate (see claim 1, and column 32, lines 45-65, measuring the strengthening of the copyright).

Regarding claim 16, Nakamura discloses an electronic watermark system as claimed in claim 15, wherein the control unit comprises, a judging portion that judges the amount of data digital image to produce a judgment result signal (see claim 1, also column 49, lines 53-67, refer to judging).

Regarding claims 7, 8, 9, 10 and 17-19, it recites similar limitation as claims 2, 3,4 and 5, are similarly analyzed.

Regarding claims 11, 12, 13 and 15, it recites similar limitation as claims 1 and 3, are similarly analyzed.

Contact Information

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Seyed Azarian whose telephone number is (703) 306-5907. The examiner can normally be reached on Monday through Thursday from 6:00 a.m. to 7:30 p.m.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bhavesh Mehta, can be reached at (703) 308-5246. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application information Retrieval (PAIR) system. Status information for published application may be obtained from either Private PAIR or Public PAIR.

Art Unit: 2625

Status information about the PAIR system, see [http:// pair-direct.uspto.gov](http://pair-direct.uspto.gov). Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Seyed Azarian
Patent Examiner
Group Art Unit 2625
January 13, 2005



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